WORLD HEALTH ORGANIZATION

TOBACCO ALERT

JANUARY 1993

EDITORIAL

TOBACCO CONTROL AND YOUTH EDUCATION IN BANGLADESH

Tobacco threatens to be one of the world's greatest killers. By the 2020s, ten million deaths will occur due to tobacco related diseases; of these, seven million will be in developing countries. Equally distressing is the increasing trend of this deadly habit in developing countries: tobacco consumption is rising in developing countries by about 2.7 per cent each year, whereas in developed countries it is falling at a rate of 1.8 per cent each year.

The tobacco control movement in Bangladesh has set several examples during recent years, including the introduction of tobacco-free policy in the Presidential Palace (Bangabhaban) and the Prime Minister's Secretariat. Smoking restrictions in public transport have also been implemented and the number of seats reserved for non-smokers is gradually increasing with the ultimate aim of a completely tobacco-free system. Encouragingly, smoking has already been banned on all domestic flights.

Health institutions have been declared tobacco-free areas and school teachers who are unable to stop smoking have been instructed not to smoke in front of their students.

Smoking has been prohibited in cinemas for several decades.

Despite all this progress, the magnitude of the problem and the persuasive power of the tobacco industry make it essential that we continue our efforts.

In order to protect the younger generation from the lure of tobacco advertising, they must be educated about the dangers of smoking at an early age. School children are therefore one of our target groups. Accordingly, we have incorporated articles on the dangers of smoking in the textbooks of school children aged 13-16 years. This has the dual effect of educating the students and discouraging the teachers. While informing the students of the dangers of tobacco consumption, it is only logical to presume that teachers will feel too embarrassed to smoke in front of their pupils. In addition, it is hoped that students will bring the message home and encourage parents who smoke to end the habit.

It is encouraging to see that in recent years, the tobacco control movement has gained momentum all over the world. Bangladesh is proud to have contributed to this progress.

Jamiruddin Sircar
Minister for Education
Government of the People's Republic of Bangladesh

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LEGISLATION

ANTI-SMOKING LEGISLATION IN WHO'S SOUTH-EAST ASIA REGION

In publishing the Expert Committee report **Smoking control strategies in developing countries** in 1983, WHO recognized that the "priority that should be given to different areas of legislation would vary from country to country according to local circumstances, legislative codes, and political realities". Such a view of the situation is particularly pertinent to the South-East Asia Region, characterized as it is by remarkable cultural and political diversity.

According to the information available to WHO, the following are highlights of the countries which currently have anti-smoking legislation: Bangladesh, India, Nepal, Sri Lanka, and Thailand.

Restrictions on advertising

In Bangladesh, it has been reported that a 1989 directive from the Government banned tobacco advertising. However, the directive is not systematically applied and tobacco is almost freely advertised in Bangladesh. In India, advertisements for cigarettes are to be accompanied by a specified health warning, which must be "conspicuous,

(continued on page 12)

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SOCIETY

SMOKING AND ADVERTISING

Smoking among the young – is advertising to blame?

According to the cigarette manufacturers, the purpose of advertising is not to recruit new smokers but to get people who already smoke to switch to their own particular brand... Although this unlikely refrain of innocence is incessantly repeated, the studies undertaken in this field in Australia, Canada, New Zealand, the United States of America and, more recently, the United Kingdom, have all found that children are extremely receptive to cigarette advertising. A number of studies have also found that children are not only influenced by cigarette advertising, but that the way they perceive it varies considerably with age. Thus 90 per cent of US children between the ages of 8 and 13 who were asked to name a brand of cigarettes came up with a brand advertised in a cartoon strip style, while 83 per cent of adolescents aged 14 to 17 gave the name of a brand associated with adventure. A study carried out in Canada showed clearly that an overwhelming proportion of teenagers are highly sensitive to the values carried by cigarette advertising.

It was in 1978 that the Royal College of Physicians in London first stressed that the habit of smoking is usually learned in childhood or adolescence and that there is every chance that a young person who has not begun to smoke by the age of twenty will not take it up later. If there are still any doubts on this score, they must surely be swept away by a report published in the United Kingdom in November 1991 by the Cancer Research Campaign. From this it emerges that it is the children who pay most attention to tobacco advertisements who are most inclined to start smoking. The authors of this study establish clearly that the four most actively advertised brands are also the brands most frequently smoked by teenagers. So are the advertisements really intended to get smokers to switch to other brands? Certainly, but without a shadow of doubt they are also intended to recruit new smokers among the young, who are highly influenced by beautiful images, even if they do not reflect reality. If this were not the case, why should cigarette manufacturers be spending colossal fortunes just to try and influence smokers' preferences?

The money spent on advertising: some edifying figures

The new smoking control programme recently launched by the United States Government in 17 States of the Union aims to prevent 1.2 million deaths from smoking. It will set out to help 4.5 million adult smokers to stop smoking and to dissuade nearly two million young people from starting. It is expected to cost between 165 and 170 million dollars over a period of seven years, i.e. less than 25 million a year. It is the biggest anti-smoking campaign ever initiated by the Government of the United States and is being undertaken jointly by the National Cancer Institute and the National Cancer Society. Meanwhile, US cigarette manufacturers spent about 3.6 thousand million dollars on advertising in 1989, in the United States alone. Merely to set these figures side by side highlights the disproportion between the resources mobilized by the two camps.

Bans are effective

Another argument frequently advanced by cigarette manufacturers – the claim that bans on tobacco advertising are ineffective – has just been refuted once again in no uncertain terms. Multifactorial analyses recently carried out by British, Finnish and New Zealand researchers, have succeeded in quantifying the direct effect of bans on tobacco advertising in several countries, taking into account all other possible explanatory factors, such as prices, incomes, population structure, etc. In Finland, a lasting drop of seven per cent in tobacco consumption was attributed to the ban on advertising introduced in 1978. In Norway, it was estimated that the ban on advertising introduced in 1975 was followed by a decline in consumption of nine to sixteen per cent. In Canada, it was estimated that consumption fell by twelve per cent in the two years following the introduction of the advertising ban (1 January 1989) and that about a quarter of the overall fall-off in consumption in this period could be attributed to the ban. In New Zealand, an eight per cent fall in consumption was attributed to the prohibition of cigarette advertising that took effect towards the end of 1990. These four studies also took account of the downward trend in consumption that was already evident before advertising was banned. In spite of this trend, further reductions in consumption were nevertheless achieved and may be attributed to the bans, as corroborated below.

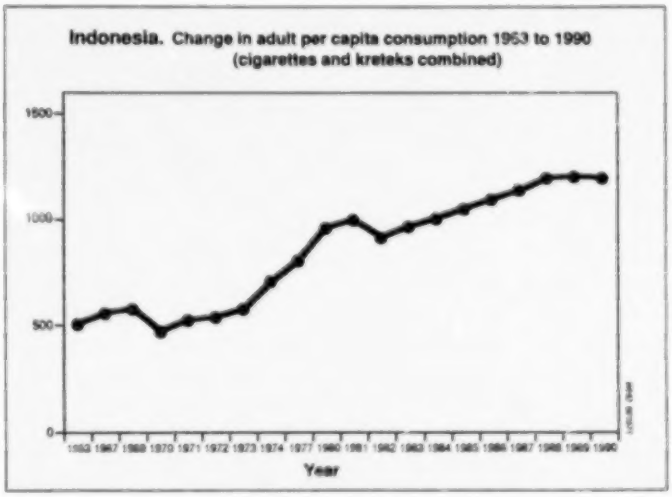
A study of twenty-two countries that are members of the Organization for Economic Cooperation and Development (OECD) covering the years 1960 to 1986 has also shown clearly that restrictions on advertising are increasingly effective in these countries. By 1986, if the OECD countries that still had no ban on tobacco advertising had introduced restrictions, they could have achieved a drop of more than six per cent in tobacco consumption.

These multifactorial studies are only able to show the direct effects of bans on advertising. But there are some indirect effects that have been identified, although they are difficult to quantify. The advertising ban in Canada helped to create a social climate in which it was possible to raise cigarette taxation substantially (from CAN $ 0.02 in 1989 to CAN $ 0.03 per cigarette in 1991), producing a further decline in rates of consumption. Without this atmosphere created by the publicity ban, Canada would never have seen such a substantial increase in cigarette taxes.

EPIDEMIOLOGY

MONITORING THE TOBACCO EPIDEMIC: INFORMATION ON INDONESIA

Indonesia is one of the most populous countries in the world, with an estimated population of 192 million. The country is experiencing rapid demographic transition with fertility falling by almost 50 per cent since the late 1960s. General health conditions are also improving rapidly, with significant progress having been made in reducing infant and child mortality.



Tobacco consumption

Most of the tobacco consumed in Indonesia is smoked as cigarettes or kreteks[1]. Average tar and nicotine levels for kreteks are comparatively high, being 58mg and 2.4mg per cigarette, respectively. In the early 1970s, kreteks represented about 60 per cent of total consumption. By 1990, 85 per cent of the 140 000 million cigarettes smoked were kreteks. About 4 million cigars and 2 000-3 000 tons of pipe tobacco are also consumed each year.

Adult per capita consumption of cigarettes (including kreteks) is estimated to have risen from 500 in 1965 to 1 190 in 1990, a rise of almost 140 per cent. Consumption has increased by 2.5 per cent a year, on average, since 1980.

Prevalence

A national household survey conducted in 1986 found smoking prevalence among those aged 10 years and older of 53 per cent and 4 per cent for males and females, respectively. This was much the same as levels reported from the 1980 household survey. Smaller surveys have been carried out at various times during the 1980s in specific areas and have yielded somewhat higher prevalence figures. For males, smoking prevalence was estimated at 75 per cent on the Island of Lambok, 65 per cent in Jakarta and 61 per cent in Yogyakarta. Among females, prevalence was less than 5 per cent, except in Jakarta (10 per cent). Only about 5 per cent of smokers smoke more than 20 cigarettes per day.

Surveys in Jakarta have shown surprisingly high smoking prevalence among school children, with levels of 40-50 per cent among boys and 10 per cent for girls. There are also marked socio-economic differences in smoking prevalence, with smoking being much more common among the less educated. This is clearly demonstrated by a survey carried out in Semarang, which found a smoking prevalence of 96 per cent for tricycle drivers, 79 per cent for paramedical personnel, 52 per cent for civil servants and 36 per cent for medical doctors[2].

On the basis of these data, it is probable that smoking prevalence is of the order of 65 per cent for males and 5 per cent for females.

Mortality and morbidity

Nationally reliable mortality and morbidity data on the disease pattern in Indonesia are not generally available. Whenever comparable data are available, they point to an increase in the major chronic diseases associated with smoking. Thus, household surveys in eight provinces in 1972 and 1980 suggest that cardiovascular diseases have increased from 5 to 10 per cent of all deaths, while proportionate mortality from cancer has risen from 1 to 3 per cent. Ischaemic heart disease is now the most frequent form of heart disease treated in hospitals. The overall prevalence of ischaemic heart disease among adults is estimated to be 1-1.5 per 1 000.

Estimates suggest that tobacco-attributable mortality has risen from 2-3 per cent of all deaths in 1980 to 3-4 per cent in 1986. This would suggest that about 57 000 deaths a year (primarily males) are already attributable to tobacco use and this number can be expected to increase dramatically within the next few decades due to the high smoking prevalence among men.

1. *A kretek is a cigarette containing tobacco and aromatizing material, usually ground cloves.*
2. *No information is available on average consumption but it is likely that the wealthier smokers would smoke more cigarettes than the less well-off.*

ECONOMICS

ALTERNATIVE FARMING OPTIONS FOR TOBACCO FARMERS IN BANGLADESH

Bangladesh is the world's largest deltaic plain. The country comprises an area of 14.3 million hectares with a net cultivable area of 9 million hectares. Highland (land above normal inundation) and medium highland (normally inundated up to a level of 90 cm during the monsoon season) constitute more than 60 per cent of the country's land area.

During Bangladesh's winter season, the highlands and medium highlands with medium textured soils are conducive and favourable to tobacco production. Land suitability rating indicates that more than 500 000 hectares of land are potentially suitable for tobacco cultivation in Bangladesh. Tobacco is currently grown in about 47 192 hectares of land, producing 41 545 tonnes per year. Local tobacco production not only meets Bangladesh's domestic requirements, but has good export potential.

The World Health Organization has projected that, if wide-scale control measures are not urgently undertaken within the next few decades, the annual death rate worldwide in the 2020s will be 10 million. To avoid such a hecatomb, various measures are being advocated which should be coupled with a progressive reduction of tobacco production – an issue of the utmost importance in countries such as Bangladesh, Brazil, China and India, where local consumption is almost entirely fuelled by local production.

In order to gradually reduce tobacco production, the Government of Bangladesh has considered the substitution of other profitable crops and the introduction of cropping patterns which offer more remunerative farming entrepreneurship.

From the analysis of the agro-ecological computerized database at the Bangladesh Agricultural Research Council, a wide variety of crops have been found to be potentially suitable for the land currently under tobacco cultivation. Potato, cotton, chili, wheat, maize, sweet potato, spices (garlic, ginger and turmeric), mustard and pulses could be more profitably grown on this land *(see Table)*.

In fact, these crops are grown to some extent in soils and climatic conditions similar to those of the tobacco growing belt. From national farming system results, the relative variable cost and gross margin were computed for certain crops with a high potential. Chili, potato, garlic and cotton cultivation appears to be more profitable than tobacco. All these crops could be successfully grown without altering the present major cropping patterns. A gross margin of Tk.70 000 per hectare could be obtained by substituting chili for tobacco. Potatoes and garlic are also superior to tobacco, but the variable cost of cultivation is more than that for tobacco. This may make small and marginal farmers hesitant about switching to these crops. The variable cost of cotton is less than that of tobacco, with a gross margin higher (Tk.3 300/ha) than tobacco; it is also agroecologically a highly suitable crop for the marginal lands where tobacco is grown. This crop would be socio-economically acceptable by the tobacco farmers; it would also be an asset to Bangladesh in that it would reduce the amount of raw cotton imported, thereby saving much needed foreign exchange for other developmental work. Similarly, when the country has to import food items, it is both logical and ethical to produce food in areas which have for so long been used to produce a toxic substance.

This land is also suitable for polycropping, that is to say, potato, garlic and palwal, pulses, etc., could be successfully cultivated and yield higher profits while maintaining the balance of the soil.

In order to popularize crop substitution programmes, it is essential to make available crop production technological packages offering some initial seed capital for the growing of alternative crops. The specific training of farmers on the improved production technologies and the demonstration of crop performances at individual farms could also accelerate the change in farming practices. Both public sector organizations and NGOs are strengthening their efforts in helping farmers to adopt potentially suitable alternative crops and cropping patterns in Bangladesh.

Comparative profitability of some potential crops suitable for substitution in Bangladesh.

Crops	Yield t/ha	Total variable cost Tk./ha*	Gross margin Tk./ha*
Tobacco	1.43	14 000	16 000
Potato	17.00	25 000	33 000
Chili	1.50	23 000	70 000
Cotton	1.50	11 500	19 300
Garlic	3.35	26 600	27 200
Mixcrop potato/ garlic and palwal		25 000	31 000

* 1 US$ = Tk.38/-

ECONOMICS

CIGARETTE SMUGGLING IN CANADA: AN UPDATE

In the July 1992 issue of *Tobacco Alert*, it was reported that Canada had implemented an export tax of CAN $ 8.00 per carton of 200 cigarettes, in an effort to control the illegal re-importation of Canadian cigarettes from the United States. This story was accurate at the time of writing, but just seven weeks after the tax was imposed on 12 February 1992, the Canadian Government, under strong pressure, had to remove the export tax.

During the time the tax was in place, it was extremely effective. Canadian cigarette exports – the source of cigarettes smuggled back into the country – plummeted from 738 million cigarettes in February 1992 to 146 million in March 1992. By May 1992, after the tax was removed, they rebounded to 959 million.

The earlier article pointed out that the imposition of the export tax offered a lesson in how careful monitoring of tobacco control policies could help in early identification of problems and lead to quick corrective action.

Removal of the tax offers another, unfortunately negative, lesson for tobacco control. It must be assumed that the tobacco industry will continue to strongly oppose and seek to reverse tobacco control policies that adversely affect their business, even after such policies are implemented. To maintain effective tobacco control policies, health interests must remain ever vigilant in the advocacy and defence of such policies.

NEWS BRIEF

WHAT IF SMOKING CAN MAKE YOU BLIND?

Tobacco is bad for the lungs, the heart and skin – no smokers can fail to be aware of this by now. But for smoking to be bad for the eyes is something new. Two studies recently published in the United States in the Journal of the American Medical Association nevertheless reveal quite unambiguously that cigarette smokers are at greater risk than non-smokers of developing cataracts. Nearly 50 million people in the world are afflicted with this eye disorder, caused by an opacity of the lens, and it is the leading cause of blindness. The two studies in question covered respectively 17 824 American males and 69 647 women. One of the findings to emerge is that people who smoke more than twenty cigarettes a day are at twice as much risk of developing a cataract as non-smokers.

In an accompanying editorial, Dr Sheila West, of the Johns Hopkins Hospital in Baltimore, estimates that 20 per cent of all cases of cataract recorded in the United States are connected with smoking and that people who give up smoking are thereby reducing the risk that they will one day get a cataract.

Scientists still do not know how tobacco affects cataracts, but according to one of the authors of the reports, Dr William Christen, cigarette smoke could reduce the blood concentration of certain nutrients that are needed to maintain the transparency of the lens.

Although cataract can be treated by surgery in the rich countries, this is a luxury that is inaccessible to most people with cataracts in the developing countries, who are often doomed to go blind. The fact that smoking is now recognized to be an avoidable cause of blindness should encourage the authorities to make even more vigorous efforts to curb this habit whose damaging effects become more and more evident as time goes by.

Epidemiological research in this field concords with the oldest of clinical observations; doctors have noted clouded vision in smokers since the middle of the eighteenth century, mainly among smokers of pipes and cigars, which were the most popular forms of tobacco consumption of the time. Since 1930, this condition has been identified as a specific disease entity, smoking-induced amblyopia.

WHO/TOH PROGRAMME

RECENT TOBACCO CONTROL INITIATIVES IN SOUTH-EAST ASIA

Recently, the WHO Tobacco or Health programme in headquarters and the WHO Regional Office for South-East Asia have been providing advice and assistance on developing national tobacco control programmes in Bangladesh, India, Nepal and Thailand. Here are highlights of some of these developments.

The building in New Delhi, India, which houses the WHO Regional Office for South-East Asia.

THAILAND

On 13 March 1992, Thailand's government adopted two new laws, the *Tobacco Products Control Act*, and the *Nonsmokers' Health Protection Act*. When all accompanying regulations are enacted and these Acts are fully implemented and enforced, Thailand will have achieved a legislative tobacco control regime to be envied and emulated by governments and public health officials around the world.

The *Tobacco Products Control Act*, which came into force on 6 August 1992, prohibits all forms of cigarette advertising and sales promotion, including free samples, price reductions, and gift and coupon schemes. Tobacco product facsimiles are banned, as is the display of tobacco brand names on other products, as well as in advertisements for other goods and services. Only telecasts from outside the country and foreign magazines are exempted from the ban. The Act also empowers the Ministry to regulate cigarette package labelling and to set standards for cigarette smoke yields. Manufacturers and importers are required to disclose tobacco product ingredients to the Ministry of Public Health. Sales through vending machines are prohibited, as are sales to persons under 18 years of age.

The *Nonsmokers' Health Protection Act*, also passed on 13 March 1992, came into force on 7 April 1992. It authorizes the Ministry of Public Health to designate certain public places as non-smoking areas. Owners of establishments that fail to designate such areas are liable to a fine, as are individuals who smoke in non-smoking areas. Regulations to specifically designate non-smoking areas are under development in the Ministry of Public Health.

To oversee the implementation, monitoring and surveillance of these new laws, related regulations and other aspects of Thailand's rapidly developing comprehensive tobacco control policy, the Ministry of Public Health has established an Office for Tobacco Consumption Control.

BANGLADESH

Tobacco use is widespread in Bangladesh: the effects of tobacco consumption are contributing to the burden of disease and death from a wide variety of infectious and chronic diseases. Even in these difficult circumstances, some positive tobacco control measures have been implemented. (See also Economics article, page 4)

On 4 June 1989, the Government issued a Directive, inviting local managers to implement controls on smoking in health institutions, transit vehicles, public places and government workplaces. The Directive also called for a ban on tobacco advertising.

Managers of health care institutions have implemented the Directive and smoking is now banned or severely restricted in most health care institutions. It is hoped that the success with smoking control in health care institutions can soon be replicated in other locations covered by the Directive.

For a time, the ban on advertising was respected, but now tobacco advertisements are again appearing, with apparent impunity. Hopefully, measures can be taken to ensure that the ban on tobacco advertising mandated by the 1989 Directive will again be strictly respected.

NEPAL

Nepal, like other countries on the Indian sub-continent, experiences severe problems of overpopulation, poverty, illiteracy and substantial premature death from infectious diseases. Added to these difficulties, in some areas of Nepal three-quarters of men and two-thirds of women use tobacco. It is not uncommon for children to be initiated to tobacco use as young as six years of age.

However, the potential for a growing burden of disease and death from

tobacco-related causes has been recognized by the Government. More importantly, the need for low-cost early preventive interventions has also been recognized and significant progress in this direction was made in 1992. In May 1992, the Ministry of Health created the National Anti-tobacco Committee, with representatives from the Ministry of Health as well as several non-governmental organizations concerned with tobacco and health issues. The Committee is charged with the responsibility of fostering, coordinating and implementing tobacco control activities in Nepal.

At the same time, May 1992, the Government took an important initiative to control tobacco in Nepal. Through a government order, the Cabinet on 29 May 1992 ordered that the secretariat, ministries, departments, offices, government-controlled corporations, institutions, hospitals, health centres, and health posts including the cabinet room will be treated as smoke-free zones. Similarly, other no-smoking areas are cinema halls, public buildings, buses, trolley buses, minibuses, domestic flights, industries and factories. Certain areas may be set aside as designated smoking areas. In the main, this order has been reasonably well-respected, with only a few cases of non-compliance noted.

The Government and the National Anti-tobacco Committee are now considering a plan for tobacco control in Nepal that would see comprehensive national tobacco control programmes and policies, of the kind recommended by the World Health Assembly, implemented in Nepal by the year 2000.

INDIA

In India, the second-most populous nation on earth, there is an astonishing variety of forms of tobacco use. These include manufactured cigarettes, hand-rolled cigarettes, bidis, chutta, reverse chutta smoking, hookah, pan masala, khaini, various other forms of chewing tobacco and even tobacco toothpaste. It is noteworthy that manufactured cigarettes probably account for about 20 per cent of tobacco consumption in India, and that their multinational manufacturers are not a major economic or political force in India.

The problems involved in tobacco control in India are exemplified by the situation surrounding the use of bidis. Bidi smoking is very widespread, with consumption estimated at 900 billion sticks per year. Bidis are hand-rolled in small factories or in cottage industries by wrapping a small amount of tobacco in non-porous tendu leaves. The finished product resembles a narrow, tapered, brown, unfiltered cigarette.

Unlike cigarettes, bidis largely escape taxation and government regulation. The packages bear no health warnings and are taxed at a very low rate, or not at all. In Delhi, the retail price for a package of 25 bidis is two rupees, about one-fifth of the price of ten cigarettes for a product that is just as hazardous as manufactured cigarettes, if not more so. Prices may be even cheaper in other areas of the country. Regulation of bidi production presents a major challenge. The industry is largely cottage-based and highly decentralized. Moreover, bidi production and marketing, if controlled at all, is controlled by State Governments, not the Central Government.

The public health reasons for imposing taxes high enough to discourage consumption on bidis are compelling. However, the people and institutions with an interest in the continued supply of cheap bidis are so numerous and they are likely to raise such strong objections to any initiative to effectively tax bidis, that it is unlikely that such taxes will be imposed in the near future.

Nevertheless, some effective tobacco control initiatives have been taken. In 1991, the Ministry of Health and Family Welfare sponsored a National Conference on Tobacco or Health that produced ten recommendations that, if fully implemented, would constitute a comprehensive national tobacco control policy. However, besides the difficulties involved in taxing bidis, the Ministry faces other daunting problems in attempting to control tobacco and only a few of the recommended measures have been implemented.

Among the effectively implemented recommendations is a ban, now in effect, on toothpaste and tooth powder containing tobacco.

Tobacco advertising has been banned in State-controlled electronic media, but continues without restriction on privately controlled electronic media, newspapers, magazines, and on posters and billboards throughout India.

The Government has also recently implemented a prohibition on smoking in Government offices, meeting rooms, Indian Airlines domestic flights and air-conditioned railway cars.

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Recent positive tobacco control developments in these four countries are indicative of a wider tobacco control movement that is awakening throughout the South-East Asia Region. WHO, through its Regional Office in New Delhi, and the Offices of WHO Representatives in every country will continue to provide support and encouragement throughout the Region to do all that is possible to implement comprehensive and effective national tobacco control programmes and policies.

EPIDEMIOLOGY

TOBACCO OR HEALTH IN SOUTH-EAST ASIA

The WHO South-East Asia Region has an estimated population of 1 340 million, including 850 million adults (15 years and over). This represents about one-third of the entire population of the developing world. Two-thirds of the Region's population live in India alone. The Region is a net tobacco producer, with India (third), Indonesia and Thailand ranking among the world's 12 leading producers.

Between 1963 and 1990, manufactured cigarette consumption per adult (defined here as people aged 15 years and over) is estimated to have risen by 60 per cent from 230 to 370. Other forms of tobacco consumption are, however, much more important for countries of South Asia. In India, almost twice the amount of tobacco used in cigarettes is smoked in bidis and one-quarter of all tobacco consumed is used for chewing. Adult per-capita consumption of cigarettes and bidis combined in India was about 760 in 1960 and has changed little since that time. The situation in Bangladesh is comparable to that in India, with adult per capita consumption being about 220 cigarettes and 700 bidis. In Sri Lanka, cigarettes are the most popular tobacco product, although bidis are also widely used. About 10 per cent of smokers also smoke cigars. Cigarette consumption in other countries of the Region, including Bhutan, Democratic People's Republic of Korea, the Maldives, Mongolia, Myanmar, and Nepal, is difficult to estimate due to paucity of data, but would appear to be in the range of 200-500 cigarettes per adult per year. Cigarette consumption is highest in Thailand and Indonesia with adult per capita consumption of the order of 1 000-1 200. Moreover, smoking prevalence among adult males is likely to be about twice these levels since female consumption is typically very low.

Cheroot smoking, with the lighted end inside the mouth, a practice common in parts of India, leads to mouth cancer.

There are very few representative surveys of the prevalence of tobacco use in the Region, with Thailand being a notable exception. There, representative national surveys of smoking behaviour have been conducted periodically since 1976. In 1991, it was estimated that 49 per cent of males of 11 years and over and 4 per cent of females of the same age were smokers. The data available in other countries of the Region suggest that male smoking prevalence is typically in the range of 40-60 per cent, and possibly as high as 70 per cent in Nepal, Bangladesh and parts of India. While smoking among women is still relatively uncommon, chewing is much more widespread, particularly in India where up to half of all adult women regularly chew tobacco in some communities. Information on socio-occupational differences in tobacco use is sparse but tends to suggest that prevalence is highest among the lower socio-economic strata.

Reliable data to monitor trends in tobacco-related diseases are not generally available for countries in the Region. However, health surveys, hospital statistics, rural surveillance sites and cancer registries all point to a rise in tobacco-related morbidity and mortality. Thus, in Indonesia, cardiovascular diseases and cancer appear to have increased more than twofold between 1972 and 1980 and it has been reported that deaths from smoking-related diseases showed a significant increase between 1980 and 1986. In Mongolia, in 1990, over six per cent of hospital deaths were from diseases caused by smoking (including several hundred lung cancer deaths) and there are at least as many that never appear in hospital statistics. A study of the frequency of respiratory symptoms (for example, morning phlegm, wheezing) carried out in Bangladesh found a two to three-fold higher prevalence among male smokers compared with non-smokers.

In India, tobacco chewing and reverse smoking have high risks for oral cavity cancer, and bidi smoking, either alone or in combination with chewing, has a high risk for cancer of the pharynx, larynx and lung. Specific consumption practices which are frequently practised among defined population groups have been found to significantly increase the risk of certain types of cancer. Thus, reverse dhumti smoking has been associated with palatal lesions in Goa; a relationship between reverse chutta smoking and carcinoma of the palate has

EPIDEMIOLOGY

been found in Hindu women in South India; and buccal and labial cancers have been attributed to pan chewing in Kerala. Oral cancers are the leading site of the disease in Sri Lanka, accounting for 10-20 per cent of all cases. On the other hand, the Parsis of Bombay, who do not indulge in tobacco habits, have a very low incidence of these cancers.

In Thailand, lung cancer is more prevalent in the Chiang Mai area where the strong "Khy Yo" are smoked. Moreover, lung cancer incidence is roughly the same for women and men in this region of the country, undoubtedly related to the much higher female smoking prevalence in this area than others. In the south of the country there is a higher incidence of oral cancer. Lung, oral and nasopharyngeal/laryngeal cancers can all be related to smoking habits in Thailand: the different types of cancer vary in importance in different regions of the country in a similar fashion to different tobacco consumption practices. There are no comparable data on prevalence or smoking-related mortality available to WHO for Bhutan, Democratic People's Republic of Korea, the Maldives and Myanmar.

From this brief review, it is evident that despite the limited availability of nationally representative mortality and morbidity data, there is substantial anecdotal evidence to suggest that tobacco is already a major cause of disease in the Region. However, in order to better monitor the evolution of the tobacco epidemic of the countries concerned, and to guide effective tobacco control policies, more detailed data, such as that from a prospective study of tobacco use and subsequent mortality, are urgently required.

LEGISLATION

BRITISH COLUMBIA BECOMES THE THIRD CANADIAN PROVINCE TO PASS TOUGH LEGISLATION ON TOBACCO SALES TO CHILDREN

Canadian federal legislation has made the sale of tobacco to, and the possession of tobacco by, children under the age of 16 a criminal offence since 1908. Unfortunately, there is no evidence of any prosecutions under the Act, despite evidence that illegal sales to children amount to CAN $ 500 000 annually.

In addition to federal legislation, similar legislation has existed for an equally long time in four of Canada's ten provinces. Historically these statutes have met with a similar lack of enthusiasm by the authorities to pursue prosecutions.

Under pressure from health groups, a further three provinces have now introduced legislation more in keeping with contemporary views on tobacco and children. Manitoba passed legislation in 1990, Prince Edward Island in 1991.

On 3 July 1992, British Columbia (population 3.3 million) passed the Tobacco Product Amendment Act, soon after the New Democratic Party was elected in October 1991.

Following the recommendations of a recent Royal Commission on Health Care, the Act empowers the Minister of Health to control tobacco sales, distribution, advertising and promotion. The sale of tobacco will require a licence from the Minister, who can proclaim regulations which set the terms and conditions of licences, and the fees payable. The Minister may suspend or cancel the licence for infraction of the license terms, and proclaim regulations which specify warning signs where tobacco is sold, the minimum package size that may be sold, and a minimum age for the purchase of tobacco. In addition, the Act prohibits the sale of single cigarettes from open packages, and specifies that vending machines must be under supervision at all times. The Ministries of Finance and Corporate Relations will also have the powers to suspend or cancel licences for any contraventions of the Tobacco Tax Act, including involvement in theft or smuggling, and failure to remit all applicable taxes.

However, the effectiveness of the legislation will depend on the regulations which the Government develops, and as soon as the Act was passed the Minister referred the matter to the Select Standing Committee on Health and Social Services to make recommendations regarding the regulations, and to make additional recommendations as to how the Government might further reduce the accessibility and attractiveness of tobacco to children and young people.

Over the summer in Canada, health groups have been working on submissions which the committee is now studying. In those submissions attention was focused on a provision of the Act which prohibits dealing in tobacco in a manner "that allows a consumer or purchaser of tobacco to be deceived or misled concerning its character, toxicity, composition, merit or safety, or in a manner that interferes with initiatives by government to prevent injury to the health of a consumer or purchaser of tobacco or to restrain the use and consumption of tobacco". In the opinion of most workers in the field of tobacco control, this provision gives the British Columbia Government virtually **carte blanche** to bring the tobacco trade in that province under total supervision, since the current practices by the tobacco industry are completely antagonistic to the spirit of this section.

In British Columbia approximately 4 300 people die prematurely each year from tobacco use, and lung cancer deaths amongst women already exceed those from breast cancer.

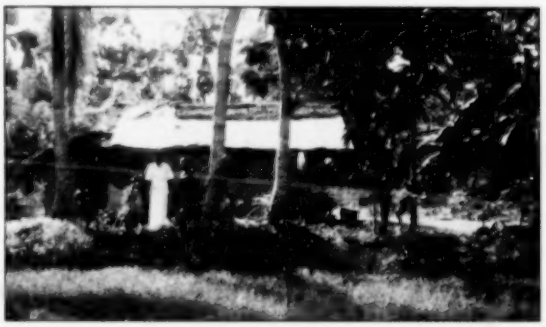
SOCIETY

APPROPRIATE TECHNOLOGY FOR COMMUNITY ACTION IN SRI LANKA

Developing countries who rely on tobacco production for economic reasons, often view the tobacco industry as relatively important and, consequently, their governments may have difficulty in implementing effective action against the spread of tobacco use. In such circumstances, local community action takes on a much greater significance; in view of the frequent lack of resources for health promotion, methods must be developed which can be replicated in each community without the need for external funding. Such a strategy has been used in Sri Lanka to involve local communities, especially youth, in research on the consequences of tobacco consumption (Rajarata Drug Prevention Project).

For the very poor, cigarettes and alcohol are often obtained at the expense of basic necessities. The risks of cancer, heart disease, and cirrhosis of the liver are often perceived as less serious than the immediate economic consequences of this addiction leading indirectly to problems for children, such as malnutrition, lack of shelter and schooling. In some remote villages in Sri Lanka, recognition of this fact has been used to encourage villagers to take action.

The strategy has been to prompt the village itself to estimate the cost of tobacco and alcohol. Young people are asked to determine the total expenditure of the village dwellers on tobacco by monitoring sales in the village outlet(s), and by talking to individual householders. Information gathered in this way is more likely to trigger a response than more standardized studies carried out by outsiders with so called expertise in research. The community estimating its own expenditure on tobacco constitutes "appropriate technology" in this regard.



An example is an extremely poor village in the dry zone of Sri Lanka where the population of around 200 families were amazed to discover how much they spent on tobacco. The village youth group who conducted the study was immediately motivated to take action when they recognized the extent to which they were economically affected. The 850 000 rupees spent in just one year on tobacco would have been sufficient to eradicate malnutrition, provide electricity to the village, and make the access road to the village motorable. The young people who discovered this mobilized the village by going from house to house explaining their findings, organized meetings and discussions within the village, and initiated action to retain these resources for the local people. This action has, interestingly, included attempts to get regular smokers to quit, while addressing the primary prevention needs as well.

Approaches to smokers have been made by completely untrained and unsophisticated young people from the village. Their programme for inducing smokers to quit is quite simple and effective. The information on the cost to the village of tobacco use is fed back to the smokers, who are asked whether the pleasure they derive from smoking makes it worth the cost. The campaigners also point out that it is a minority who smoke, and drain more than a third of the village's total income on a habit which the others find unpleasant. Examples of people who have given up without any great fanfare or expert help are cited. The net result has been a significant reduction in expenditure on tobacco in a short time, as well as a clear reduction in the attractiveness of tobacco to the young people of the village, who are the main campaigners to reduce its consumption.

This experience indicates that encouraging people to investigate the economic burden of tobacco use is a potent stimulus for change. It has also demonstrated that the relative cost of tobacco for the poorest families is damagingly high; for them, the consequences of money being diverted to tobacco rather than essentials such as family nutritional needs, are even more damaging than the diseases caused directly by tobacco. The other finding has been that even regular heavy smokers are able to give up smoking with relative ease when conditions are right.

When tobacco cessation is not presented as a superhuman task to be undertaken with the help of experts and medication, it can be achieved more easily. In Sri Lanka, a social movement to prevent meagre earnings being siphoned away has proved to be a far more potent agent in promoting change than fear of long-term risks of disease.

ICAO

ICAO ASSEMBLY ADOPTS RESOLUTION TO BAN SMOKING FROM INTERNATIONAL PASSENGER FLIGHTS BY 1996

On 8 October 1992, news services around the world reported that the Twenty-ninth General Assembly of the International Civil Aviation Organization (ICAO) adopted a resolution to ban smoking on all international passenger flights by 1996. For many aviation authorities and airlines, a new chapter of public health will now be written as they bend themselves to the task of moving smoothly towards the target date of 1996 for restricting smoking on international flights.

But what of the chapter just written? Where did this resolution come from and why did it receive such widespread support from all the world's civil aviation authorities? Part of the answers to these questions can be found in the tireless efforts of major national health agencies that pooled efforts across national boundaries to form "Smoke Free Skies Worldwide", a coalition of health agencies from several countries that promoted the idea of smoke-free international flight.

More answers can be found in the collaboration between WHO and ICAO that stretches back to 1991. Let us peek behind the scenes at the collaborative work that went on in these two major U.N. agencies, WHO and ICAO, prior to the passage of this resolution.

In May 1991, the World Health Assembly passed its own resolution (WHA44.26) requesting, among other things, the Director-General "to collaborate with the International Civil Aviation Organization and all competent international and national agencies in developing guidelines and recommendations for a smoke-free travel environment in all types of public conveyances".

Shortly after passage of this resolution, ICAO was contacted and readily agreed to collaborate with WHO on the development of guidelines for smoke-free travel. ICAO appointed a well-qualified staff member, an experienced specialist in civil aviation medicine, as a focal point for collaboration with WHO on this question.

In addition to ongoing collaboration with WHO, ICAO also intensified its independent investigations into the flight safety aspects of smoking in aircraft. In October 1991, the ICAO Secretariat offered an informal briefing to the ICAO Air Navigation Commission on the flight safety aspects of smoking in aircraft. This was followed up by a formal discussion of the matter in the 1992 winter meetings of the Air Navigation Commission, with a member of this body suggesting that a new task be included in the Technical Work Programme which would have the primary objective of developing Standards and Recommended Practices prohibiting smoking on board international flights in the interests of flight safety. In May 1992, the Air Navigation Commission directed the ICAO Secretariat to continue investigations of the problem through a further round of consultations on the problem of smoking in aircraft with Contracting States. These consultations will continue and will provide very valuable information to Contracting States as they seek to implement the newly-adopted ICAO resolution.

Meanwhile, a number of ICAO Contracting States were concerned enough about the problem to propose a draft resolution on smoking restrictions on international passenger flights for the consideration of delegates at the Twenty-ninth Session of the ICAO Assembly, which met in Montreal from 22 September to 8 October 1992.

In keeping with the spirit of cooperation that had developed between ICAO and WHO, the ICAO Secretary-General issued a formal invitation to WHO to send an Observer to the ICAO Assembly, where the draft resolution on smoking in international air travel would be discussed. WHO was pleased to respond affirmatively, and their Observer addressed ICAO delegates in a plenary session, inviting them to give the draft resolution serious consideration.

Eventually, the delegates did adopt a resolution, urging Contracting States to work towards a ban on smoking on international flights by 1996.

Ever conscious of the value of collaboration with WHO, the delegates also requested, through the same resolution, "the ICAO Council, *with the assistance and cooperation of the World Health Organization*, to take appropriate measures to promote a smoke-free travel environment on all international flights". This request for further assistance and cooperation from WHO was immediately granted by Dr N.P. Napalkov, Assistant Director-General, WHO, thereby ensuring that WHO and ICAO will continue their fruitful and successful collaboration in seeking to reduce health hazards of involuntary exposure to tobacco smoke in international flight.

In commenting on the adoption of the resolution to ban smoking by the ICAO Assembly, Mr Ken Kyle of the Canadian Cancer Society perspicaciously observed, "This decision demonstrates how United Nations' agencies (ICAO, WHO) can work together to solve global problems".

LEGISLATION

ANTI-SMOKING LEGISLATION IN WHO'S SOUTH-EAST ASIA REGION

(continued from page 1)

legible and prominent"; but is this warning effective? In Thailand, a 1992 Act prohibits all forms of cigarette advertising and sales promotion, including exchanges with other goods or services or offers for free admission to shows or sporting events. Free samples of cigarettes are banned, as are goods that imitate tobacco products.

Restrictions on smoking in public places

Bangladesh, India, Nepal, and Thailand have legislation to restrict smoking in government buildings, health establishments, schools and educational establishments, and certain other public places. It has been reported that the Nepalese Government, through a government order issued in 1992, has implemented comprehensive measures to control public smoking. Smoking is banned or restricted to a limited number of smoking areas in government offices and businesses, health care institutions, cinemas, public buildings, industries, factories, buses and domestic flights. In the Democratic People's Republic of Korea, Myanmar, and Sri Lanka, similar restrictions are imposed by administrative provisions. As early as 1953, India prohibited smoking in certain places (e.g. places of entertainment) because of the fire hazard. Since then, in order to protect the non-smoking public from the hazards of passive smoking, the legislative ban has been extended (notably by means of a Memorandum issued by the Central Government in May 1990) to cover a wide range of public places and workplaces. India, Nepal, and Thailand have banned smoking on domestic flights, and India has also banned smoking in air-conditioned buses. Smoking in public transport is banned by law in Nepal, while Myanmar and Sri Lanka restrict it by administrative measures.

Health warnings on cigarette packets

Such warnings are mandatory in India and Sri Lanka. Cigarettes may, however, be exported from India without health warnings, provided that such warnings are not required by the importing country. Revisions to warnings on cigarette packets are being considered in India. Regulations requiring new and stronger health warnings are under development in Thailand.

Sales of tobacco products to minors

In Thailand, the sale of tobacco products to persons under 18 years of age is prohibited, as are sales through vending machines.

Levels of harmful constituents in tobacco products

In Thailand, the above-mentioned Act empowers the Ministry of Public Health to set standards for the ingredients of cigarettes. Manufacturers and importers are required to disclose product ingredients to the Ministry.

Smokeless tobacco

In India, the sale of "**paan**" (a type of chewing tobacco) has been banned in all railway stations and on trains.

IARC

COMPARATIVE STUDY OF ANTI-SMOKING LEGISLATION IN COUNTRIES OF THE EUROPEAN ECONOMIC COMMUNITY

The International Agency for Research on Cancer (IARC) recently published a report of the current status of anti-smoking legislation in the Member States of the EEC[1]. This provides comprehensive and up-to-date information on European legislation in the following fields: advertising of tobacco products (direct, indirect and sponsorship); labelling (health warnings, indication of nicotine and tar levels, and other components) and limits on tar levels; protection of children (advertising, age limit for sales of tobacco products to minors, and specific smoking bans); definition of tobacco products (smoking and smokeless) and prohibited products; and smoking in public places. Separate chapters are devoted to each of these fields and present the national legislation for each Member State, as well as summarizing available data in table form, thereby facilitating the comparison of existing legislation across countries. This document can be used as a compendium of legislative texts, some of which are available from various sources including the International Digest of Health Legislation, as well as from the various national governments. It is intended as an aid for those involved in the drawing up of legislative texts in countries where so far little exists, and also as an assessment of legislative trends in Europe. The present movement is towards a greater harmonization of legislation in Member States and a progressive reinforcement of restrictions on smoking, particularly with regard to advertising, health warnings, and smoking in public places and in the workplace. The impact of legislation has been evaluated and has been shown to be effective[2]. However, it is not sufficient to enact legislation or even to harmonize legislation in accord with the most effective standard. Legislation must be implemented in practice and must be enforced, with effective penalties that deter the use of tobacco. Above all, it must be strengthened with sound educational measures directed at high-risk groups, especially young people, and to the general population. Legislation should serve as a basis for a comprehensive programme of smoking control.

1 Sasco, A.J., Dalla-Vorgia, P., van der Elst, P.: *Comparative study of anti-smoking legislation in the Member States of the EEC*. IARC-EEC Technical Report No. 8. International Agency for Research on Cancer, Lyon, 1992.

2 Dalla-Vorgia, P., Sasco, A.J., Skalkidis, Y., Katsouyanni, K., Trichopoulos, D.: *An evaluation of the effectiveness of tobacco control legislative policies in European Community countries*. Scand. J. Soc. Med. 18:81-89, 1990.

This newsletter is issued by the WHO programme on Tobacco or Health (TOH), World Health Organization, 1211 Geneva 27, Switzerland. The text may be freely reproduced and illustrations may be used, giving credit to WHO. Cuttings are requested. Contributions and suggestions to be addressed to Dr C. Chollat-Traquet, Editor.

The following have contributed to this issue:

- K. Anuradhanayake, Sri Lanka;
- M.D. Goodyear, Hamilton Regional Cancer Centre, Ontario, Canada;
- N. Islam, ADHUNIK, Bangladesh;
- Z. Karim, Bangladesh Agricultural Research Council;
- D. Samarasinghe, Sri Lanka;
- J. Sircar, Minister of Education, Bangladesh;
- P. Dalla-Vorgia, A. Sasco, P. van der Elst, International Agency for Research on Cancer, Lyon; H.L. Sell, WHO Regional Office for South-East Asia; C. Chollat-Traquet, N. Collishaw, S. Ewart, T. Farkas, J.-C. Fattier, S.S. Fluss, M. Latham, J. Lau Hansen, A. Lopez, P. Siroot, WHO headquarters.

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